

Reply to Final Office Action of March 08, 2005
Amendment Dated: May 26, 2005

Appl. No.: 09/824,837
Attorney Docket No.: CSCO-004/3579

REMARKS

Claims 1-41 were examined in the Final Office Action mailed on March 8, 2008 (hereafter "First Final Office Action"). All the presented claims were rejected under 35 U.S.C. § 103. In response, independent claims 1, 10, 17, 24, 33, 24 and 33 are sought to be amended, claims 7, 14, 20, 30 and 39 are sought to be canceled, claims 42-46 are sought to be added, Figure 2 is sought to be amended, Figure 5 is sought to be added, and the specification is sought to be amended consistent with the addition/amendments to the drawings. The additions, amendments and cancellations are believed not to introduce new matter, and their entry is respectfully requested.

Claims 1-6, 8-13, 15-19, 21-29, 31-38, and 40-47 are thus presented for consideration. Reconsideration is respectfully requested with respect to the presented claims, further in view of the following remarks.

Telephone Interview

Applicants again thank Examiner Vincent for providing the opportunity to conduct the telephone interview on May 24, 2005. Only Examiner Vincent and the undersigned representative were participants to the telephone interview. Some of the remarks below and claim 7 were discussed. No agreement appears to have been reached. It is requested that the Examiner complete interview summary form PTOL-413, and a copy of the completed form PTOL-413 be mailed to the address of record, if one has not been mailed already. It is further believed that the Applicants burden of making of record the substance of the interview (see MPEP § 713.04), is met in view of the present response.

Petition to Correct Inventorship

It is noted that a petition seeking to add Mr. Praneet Bachheti as a joint inventor was filed on June 11, 2001. No decision has been received on the petition. It is respectfully requested that the petition be acted upon as soon as possible.

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Corrections to Drawings

Figure 2 is sought to be amended and Figure 5 is sought to be added in response to the objection to drawings noted page 2, paragraph 1 of the First Final Office Action. With respect to Figure 2, new steps 230 and 280 are sought to be introduced, and the term
5 "related to a point-to-point session" is sought to be inserted into step 220 such that the amended step 220 reads, "Receive a datagram related to a point-to-point session from an end system".

The amendments to Figure 2 are believed to be supported in the specification at least by lines 1-10 of page 12, and claims 7 and 8 as originally filed. Accordingly, the additions and
10 amendments are believed not to introduce new matter and their entry is respectfully requested.

Figure 5 is sought to be added and depicts the copying of the TOS/Precedence value from an IP packet to a IP tunnel header. The drawing is believed to be supported by page 14 lines 4-15 of the specification and claims 5-6 as originally filed. Accordingly, the addition of Figure 5 is believed not to introduce new matter, and its entry is respectfully
15 requested.

The specification is also sought to be amended consistent with the drawings by virtue of the foregoing amendments. The amendments are also believed not to introduce new matter, and their entry is respectfully requested.

The features of Figure 2 and Figure 5 are believed to show the features of the invention specified in the claims, and withdrawal of the objection with respect to drawings
20 (in page 2, paragraph 1 of First Final Office Action) is respectfully requested.

Amendments to Claims

As noted above, claims 1, 10, 17, 24 and 33 have been amended. The amendments to these claims at least substantially parallel the features of canceled claims 7, 14, 20, 30
25 and 39. In other words, claims 1, 10, 17, 24 and 33 have been amended to incorporate at

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least substantially the features of canceled claims 7, 14, 20, 30 and 39, which were examined in the First Final Office Action.

Claim Rejections - 35 U.S.C. § 103

Claims 1-41 have been rejected under 35 U.S.C. 103 (a) as being unpatentable over United States Patent Number 6,185,210 issued to Troxel (hereafter "Troxel") in view of US Published Application number 2003/0007455 issued to Kohzuki ("Kohzuki"). Applicants traverse the rejection with respect to the amended claims, as explained below.

With respect to amended claim 17, it recites in relevant parts:

a memory indicating whether to provide different QOS to different layer-3 datagrams related to a point-to-point session;

an input interface receiving a layer-3 datagram, said layer-3 datagram containing a datagram header and a datagram data;

a classifier determining whether said layer-3 datagram relates to said point-to-point session;

a marker determining a QOS to be provided to said layer-3 datagram, *wherein said marker provides different QOS to different layer-3 datagrams only if said memory indicates that different QOS is to be provided to different layer-3 datagrams related to said point-to-point session;*

a tunnel encapsulator encapsulating at least said datagram data with a layer-3 header to generate an encapsulated data, said layer-3 header identifies a tunnel set up via a backbone to said second network device, said tunnel providing different QOS to packets having different packet headers;

a forwarding block forming at least one packet to transport said encapsulated data, wherein said encapsulated data is encapsulated for transporting on said tunnel, *said at least one packet containing a packet header to provide said QOS determined by said examining;* and

an output interface sending said at least one packet to said second network device on said tunnel,

whereby said first network device *provides different QOS to different layer-3 datagrams received only on some point-to-point sessions.*

(Currently Amended Claim 17, *Emphasis Added*)

Thus, a network device according to amended claim 17 contains a memory which indicates whether to provide different QOS to different packets received on a point-to-point session. A marker then determines to provide different QOS to different layer-3 datagrams received on the point-to-point session only of the memory indicates that

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different QOS are to be provided to different layer-3 datagrams received on the point-to-point session. A forwarding block then forwards the data of the datagram in packets with packet header to provide the QOS determined by the marker.

5 As a result only datagrams received on only some of the point-to-point sessions receive different QOS for different datagrams. In other words, depending on the indication in the memory, datagrams related to only some of the point-to-point sessions receive differentiated QOS (i.e., differentiated QOS for different packets on the same point-to-point session), and all the datagrams on each of the remaining point-to-point sessions would receive the same QOS.

10 Such a feature may be important in several scenarios. For example, the feature may enable a service provider to provide differentiated QOS only on desired point-to-point sessions. The feature facilitates the service provider to charge different end users (with each end user being provided a corresponding point-to-point session) differently, and is often desirable in the marketplace.

15 The feature of providing differentiated QOS to only some point-to-point sessions, but not all, is not disclosed or suggested by the references of record either alone or in combination, as explained below.

20 It is first noted that the point-to-point sessions recited in the claims correspond to PPP sessions, as noted in lines 16-20 of page 11 of the specification as originally filed. PPP in turn stands for point-to-point protocol (PPP) defined in RFC 1661, as noted in line 2 of page 11 of the specification as originally filed.

In sharp contrast, the Examiner appears to have equated the point-to-point virtual circuits of ATM networks to the point-to-point sessions of the present claims. The two

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terms are different and signify different entities. While PPP sessions are generally established between a user's computer system and a network device, the ATM point-to-point virtual circuits relied upon by the Examiner are setup between ATM switches.

5 In this regard it is believed that one skilled in the relevant arts would understand the term PPP session as being different from the point-to-point connections of ATM network. Accordingly, it is respectfully submitted that the term "point to point session" (or PPP session) has been given a specific interpretation in the specification, in addition to having a meaning which is distinct from the ATM point to point connections, to one skilled in the relevant arts.

10 With respect to the art of record, it is first noted that the description of Kohzuki appears to relate substantially to ATM point-to-point connections only. Troxel also does not appear to disclose/teach point-to-point session, at least as in amended claim 17. Any copying of header information in Troxel appears to be related to packets destined to groups (e.g., column 6 lines 5-10 of Troxel), and not point-to-point (PPP) sessions as in amended
15 claim 17. Thus, it is asserted that the art of record does not disclose or suggest the features of amended claim 17.

20 Even assuming arguendo that the point-to-point session of amended claim 17 is identical to the ATM point-to-point connections as appears to be contended by the Examiner, it is respectfully submitted that there is no memory in the art of record which provides an indication as to whether to provide differentiated QOS to datagrams received on each point-to-point session (which causes differentiated QOS to be provided to datagrams on only the corresponding point-to-point sessions, but not all point-to-point sessions).

Accordingly, amended claim 17 is allowable over the art of record. The remaining

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amended independent claims are also believed to be allowable over the art of record, at least for one or more reasons noted above. All the dependent claims are also allowable at least as depending from an allowable base claim. In particular, new claims 42-46 further define some of the features explained above, and are accordingly believed to be allowable
5 independently.

The Examiner is invited to telephone the undersigned representative if it is believed that an interview might be useful for any reason.

Respectfully submitted,



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